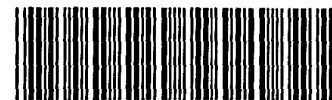RAW SEQUENCE LISTING   DATE: 07/02/2002
PATENT APPLICATION: US/10/057,467   TIME: 14:04:49

Input Set : N:\Crf3\RULE60\10057467.raw
Output Set: N:\CRF3\07022002\J057467.raw

SEQUENCE LISTING

```
    3 (1) GENERAL INFORMATION:
    5      (i) APPLICANT: Nolan, Garry P.
    6                      Rothenberg, Michael S.
    8     (ii) TITLE OF INVENTION: Methods for Screening for Transdominant
    9                              Effector Peptides and RNA Molecules
   11    (iii) NUMBER OF SEQUENCES: 14
   13     (iv) CORRESPONDENCE ADDRESS:
   14          (A) ADDRESSEE: Flehr, Hohbach, Test, Albritton & Herbert
   15          (B) STREET: 4 Embarcadero Center, Suite 3400
   16          (C) CITY: San Francisco
   17          (D) STATE: CA
   18          (E) COUNTRY: USA
   19          (F) ZIP: 94111-4187
   21      (v) COMPUTER READABLE FORM:
   22          (A) MEDIUM TYPE: Floppy disk
   23          (B) COMPUTER: IBM PC compatible
   24          (C) OPERATING SYSTEM: PC-DOS/MS-DOS
   25          (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
   27     (vi) CURRENT APPLICATION DATA:
C-->28          (A) APPLICATION NUMBER: US/10/057,467
C-->29          (B) FILING DATE: 22-Jan-2002
   30          (C) CLASSIFICATION:
   32    (vii) PRIOR APPLICATION DATA:
   33          (A) APPLICATION NUMBER: 08/589,109
   34          (B) FILING DATE: 23-JAN-1996
   38   (viii) ATTORNEY/AGENT INFORMATION:
   39          (A) NAME: Silva, Robin M.
   40          (B) REGISTRATION NUMBER: 38,304
   41          (C) REFERENCE/DOCKET NUMBER: A-64259/DJB/RMS
   43     (ix) TELECOMMUNICATION INFORMATION:
   44          (A) TELEPHONE: (415) 781-1989
   45          (B) TELEFAX: (415) 949-8711
   47 (2) INFORMATION FOR SEQ ID NO: 1:
   49      (i) SEQUENCE CHARACTERISTICS:
   50          (A) LENGTH: 9 amino acids
   51          (B) TYPE: amino acid
   52          (C) STRANDEDNESS:
W-->53          (D) TOPOLOGY: Not Relevant
   55     (ii) MOLECULE TYPE: peptide
   57     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W-->59      Xaa Xaa Xaa Pro Pro Xaa Pro Xaa Xaa
   60      1                   5
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ENTERED

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PATENT APPLICATION: US/10/057,467   TIME: 14:04:49

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Output Set: N:\CRF3\07022002\J057467.raw

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62  (2) INFORMATION FOR SEQ ID NO: 2:
64      (i) SEQUENCE CHARACTERISTICS:
65          (A) LENGTH: 92 base pairs
66          (B) TYPE: nucleic acid
67          (C) STRANDEDNESS: double
68          (D) TOPOLOGY: linear
70      (ii) MOLECULE TYPE: cDNA
72      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
74  GCTTAGCAAG ATCTCTACGG TGGACCKNNK NNKNNKNNKN NKNNKNNKNN KNNKNNCCCC    60
76  ACTCCCATGG TCCTACGTAC CACCACACTG GG                                 92
78  (2) INFORMATION FOR SEQ ID NO: 3:
80      (i) SEQUENCE CHARACTERISTICS:
81          (A) LENGTH: 34 base pairs
82          (B) TYPE: nucleic acid
83          (C) STRANDEDNESS: double
84          (D) TOPOLOGY: linear
86      (ii) MOLECULE TYPE: cDNA
88      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
90  GCTTAGCAAG ATCTGTGTGT CAGTTAGGGT GTGG                               34
92  (2) INFORMATION FOR SEQ ID NO: 4:
94      (i) SEQUENCE CHARACTERISTICS:
95          (A) LENGTH: 74 base pairs
96          (B) TYPE: nucleic acid
97          (C) STRANDEDNESS: double
98          (D) TOPOLOGY: linear
100     (ii) MOLECULE TYPE: cDNA
102     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
104 CTGGAGAACC AGGACCATGG GCNNKNNKNN KNNKNNKNNK NNKNNKNNKN NKGGGCCCCC    60
106 TTAAACCATT AAAT                                                     74
108 (2) INFORMATION FOR SEQ ID NO: 5:
110     (i) SEQUENCE CHARACTERISTICS:
111         (A) LENGTH: 71 base pairs
112         (B) TYPE: nucleic acid
113         (C) STRANDEDNESS: double
114         (D) TOPOLOGY: linear
116     (ii) MOLECULE TYPE: cDNA
118     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
120 CTGGAGAACC AGGACCATGG GCNNKNNKNN KCCTCCCNNK CCTNNKNNKG GGCCCCCTTA    60
122 AACCATTAAA T                                                        71
124 (2) INFORMATION FOR SEQ ID NO: 6:
126     (i) SEQUENCE CHARACTERISTICS:
127         (A) LENGTH: 26 base pairs
128         (B) TYPE: nucleic acid
129         (C) STRANDEDNESS: double
130         (D) TOPOLOGY: linear
132     (ii) MOLECULE TYPE: cDNA
134     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
136 TCATGCATCC AATTTAATGG TTTAAG                                        26
138 (2) INFORMATION FOR SEQ ID NO: 7:
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Input Set : N:\Crf3\RULE60\10057467.raw
Output Set: N:\CRF3\07022002\J057467.raw

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140      (i) SEQUENCE CHARACTERISTICS:
141          (A) LENGTH: 4950 base pairs
142          (B) TYPE: nucleic acid
143          (C) STRANDEDNESS: double
144          (D) TOPOLOGY: linear
146     (ii) MOLECULE TYPE: DNA (genomic)
148     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
150 TGAAAGACCC CACCTGTAGG TTTGGCAAGC TAGCTTAAGT AACGCCATTT TGCAAGGCAT    60
152 GGAAAATACA TAACTGAGAA TAGAGAAGTT CAGATCAAGG TTAGGAACAG AGAGACAGCA   120
154 GAATATGGGC CAAACAGGAT ATCTGTGGTA AGCAGTTCCT GCCCCGGCTC AGGGCCAAGA   180
156 ACAGATGGTC CCCAGATGCG GTCCCGCCCT CAGCAGTTTC TAGAGAACCA TCAGATGTTT   240
158 CCAGGGTGCC CCAAGGACCT GAAAATGACC CTGTGCCTTA TTTGAACTAA CCAATCAGTT   300
160 CGCTTCTCGC TTCTGTTCGC GCGCTTCTGC TCCCCGAGCT CAATAAAAGA GCCCACAACC   360
162 CCTCACTCGG CGCGCCAGTC CTCCGATAGA CTGCGTCGCC CGGGTACCCG TATTCCCAAT   420
164 AAAGCCTCTT GCTGTTTGCA TCCGAATCGT GGACTCGCTG ATCCTTGGGA GGGTCTCCTC   480
166 AGATTGATTG ACTGCCCACC TCGGGGGTCT TTCATTTGGA GGTTCCACCG AGATTTGGAG   540
168 ACCCCTGCCT AGGGACCACC GACCCCCCCG CCGGGAGGTA AGCTGGCCAG CGGTCGTTTC   600
170 CTGTCTGTCT CTGTCTTTGT GCGTGTTTGT GCCGGCATCT AATGTTTGCG CCTGCGTCTG   660
172 TACTAGTTAG CTAACTAGCT CTGTATCTGG CGGACCCGTG GTGGAACTGA CGAGTTCTGA   720
174 ACACCCGGCC GCAACCCTGG GAGACGTCCC AGGGACTTTG GGGGCCGTTT TTGTGGCCCG   780
176 ACCTGAGGAA GGGAGTCGAT GTGGAATCCG ACCCCGTCAG GATATGTGGT TCTGGTAGGA   840
178 GACGAGAACC TAAAACAGTT CCCGCCTCCG TCTGAATTTT TGCTTTCGGT TTGGAACCGA   900
180 AGCCGCGCGT CTTGTCTGCT GCAGCGCTGC AGCATCGTTC TGTGTTCTCT CTGTCTGACT   960
182 GTGTTTCTGT ATTTGTCTGA AAATTAGGGC CAGACTGTTA CCACTCCCTT AAGTTTGACC  1020
184 TTAGGTCACT GGAAAGATGT CGAGCGGATC GCTCACAACC AGTCGGTAGA TGTCAAGAAG  1080
186 AGACGTTGGG TTACCTTCTG CTCTGCAGAA TGGCCAACCT TTAACGTCGG ATGGCCGCGA  1140
188 GACGGCACCT TTAACCGAGA CCTCATCACC CAGGTTAAGA TCAAGGTCTT TTCACCTGGC  1200
190 CCGCATGGAC ACCCAGACCA GGTCCCCTAC ATCGTGACCT GGGAAGCCTT GGCTTTTGAC  1260
192 CCCCCTCCCT GGGTCAAGCC CTTTGTACAC CCTAAGCCTC CGCCTCCTCT TCCTCCATCC  1320
194 GCCCCGTCTC TCCCCCTTGA ACCTCCTCGT TCGACCCCGC CTCGATCCTC CCTTTATCCA  1380
196 GCCCTCACTC CTTCTCTAGG CGCCGGAATT CCAGGACCAT GGGCGGGCCC CCTTAAACCA  1440
198 TTAAATTGGT AAAATAAAGG ATCCGTCGAC CTGCAGCCAA GCTTATCGAT AAAATAAAAG  1500
200 ATTTTATTTA GTCTCCAGAA AAAGGGGGGA ATGAAAGACC CCACCTGTAG GTTTGGCAAG  1560
202 CTAGCTTAAG TAACGCCATT TTGCAAGGCA TGGAAAATAC ATAACTGAGA ATAGAGAAGT  1620
204 TCAGATCAAG GTTAGGAACA GAGAGACAGC AGAATATGGG CCAAACAGGA TATCTGTGGT  1680
206 AAGCAGTTCC TGCCCCGGCT CAGGGCCAAG AACAGATGGT CCCCAGATGC GGTCCCGCCC  1740
208 TCAGCAGTTT CTAGAGAACC ATCAGATGTT CCAGGGTGC CCCAAGGACC TGAAAATGAC  1800
210 CCTGTGCCTT ATTTGAACTA ACCAATCAGT TCGCTTCTCG CTTCTGTTCG CGCGCTTCTG  1860
212 CTCCCCGAGC TCAATAAAAG AGCCCACAAC CCCTCACTCG GCGCGCCAGT CCTCCGATAG  1920
214 ACTGCGTCGC CCGGGTACCC GTGTATCCAA TAAACCCTCT TGCAGTTGCA TCCGACTTGT  1980
216 GGTCTCGCTG TTCCTTGGGA GGGTCTCCTC TGAGTGATTG ACTACCCGTC AGCGGGGGTC  2040
218 TTTCATTCGT AATCATGGTC ATAGCTGTTT CCTGTGTGAA ATTGTTATCC GCTCACAATT  2100
220 CCACACAACA TACGAGCCGG AAGCATAAAG TGTAAAGCCT GGGGTGCCTA ATGAGTGAGC  2160
222 TAACTCACAT TAATTGCGTT GCGCTCACTG CCCGCTTTCC AGTCGGGAAA CCTGTCGTGC  2220
224 CAGCTGCATT AATGAATCGG CCAACGCGCG GGGAGAGGCG GTTTGCGTAT TGGGCGCTCT  2280
226 TCCGCTTCCT CGCTCACTGA CTCGCTGCGC TCGGTCGTTC GGCTGCGGCG AGCGGTATCA  2340
228 GCTCACTCAA AGGCGGTAAT ACGGTTATCC ACAGAATCAG GGGATAACGC AGGAAAGAAC  2400
230 ATGTGAGCAA AAGGCCAGCA AAAGGCCAGG AACCGTAAAA AGGCCGCGTT GCTGGCGTTT  2460
232 TTCCATAGGC TCCGCCCCCC TGACGAGCAT CACAAAAATC GACGCTCAAG TCAGAGGTGG  2520
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Input Set : N:\Crf3\RULE60\10057467.raw
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234 CGAAACCCGA CAGGACTATA AAGATACCAG GCGTTTCCCC CTGGAAGCTC CCTCGTGCGC   2580
236 TCTCCTGTTC CGACCCTGCC GCTTACCGGA TACCTGTCCG CCTTTCTCCC TTCGGGAAGC   2640
238 GTGGCGCTTT CTCATAGCTC ACGCTGTAGG TATCTCAGTT CGGTGTAGGT CGTTCGCTCC   2700
240 AAGCTGGGCT GTGTGCACGA ACCCCCCGTT CAGCCCGACC GCTGCGCCTT ATCCGGTAAC   2760
242 TATCGTCTTG AGTCCAACCC GGTAAGACAC GACTTATCGC CACTGGCAGC AGCCACTGGT   2820
244 AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG AGTTCTTGAA GTGGTGGCCT   2880
246 AACTACGGCT ACACTAGAAG GACAGTATTT GGTATCTGCG CTCTGCTGAA GCCAGTTACC   2940
248 TTCGGAAAAA GAGTTGGTAG CTCTTGATCC GGCAAACAAA CCACCGCTGG TAGCGGTGGT   3000
250 TTTTTTGTTT GCAAGCAGCA GATTACGCGC AGAAAAAAAG GATCTCAAGA AGATCCTTTG   3060
252 ATCTTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAAACT CACGTTAAGG GATTTTGGTC   3120
254 ATGAGATTAT CAAAAAGGAT CTTCACCTAG ATCCTTTTAA ATTAAAAATG AAGTTTTAAA   3180
256 TCAATCTAAA GTATATATGA GTAAACTTGG TCTGACAGTT ACCAATGCTT AATCAGTGAG   3240
258 GCACCTATCT CAGCGATCTG TCTATTTCGT TCATCCATAG TTGCCTGACT CCCCGTCGTG   3300
260 TAGATAACTA CGATACGGGA GGGCTTACCA TCTGGCCCCA GTGCTGCAAT GATACCGCGA   3360
262 GACCCACGCT CACCGGCTCC AGATTTATCA GCAATAAACC AGCCAGCCGG AAGGGCCGAG   3420
264 CGCAGAAGTG GTCCTGCAAC TTTATCCGCC TCCATCCAGT CTATTAATTG TTGCCGGGAA   3480
266 GCTAGAGTAA GTAGTTCGCC AGTTAATAGT TTGCGCAACG TTGTTGCCAT TGCTACAGGC   3540
268 ATCGTGGTGT CACGCTCGTC GTTTGGTATG GCTTCATTCA GCTCCGGTTC CCAACGATCA   3600
270 AGGCGAGTTA CATGATCCCC CATGTTGTGC AAAAAAGCGG TTAGCTCCTT CGGTCCTCCG   3660
272 ATCGTTGTCA GAAGTAAGTT GGCCGCAGTG TTATCACTCA TGGTTATGGC AGCACTGCAT   3720
274 AATTCTCTTA CTGTCATGCC ATCCGTAAGA TGCTTTTCTG TGACTGGTGA GTACTCAACC   3780
276 AAGTCATTCT GAGAATAGTG TATGCGGCGA CCGAGTTGCT CTTGCCCGGC GTCAATACGG   3840
278 GATAATACCG CGCCACATAG CAGAACTTTA AAAGTGCTCA TCATTGGAAA ACGTTCTTCG   3900
280 GGGCGAAAAC TCTCAAGGAT CTTACCGCTG TTGAGATCCA GTTCGATGTA ACCCACTCGT   3960
282 GCACCCAACT GATCTTCAGC ATCTTTTACT TTCACCAGCG TTTCTGGGTG AGCAAAAACA   4020
284 GGAAGGCAAA ATGCCGCAAA AAAGGGAATA AGGGCGACAC GGAAATGTTG AATACTCATA   4080
286 CTCTTCCTTT TTCAATATTA TTGAAGCATT TATCAGGGTT ATTGTCTCAT GAGCGGATAC   4140
288 ATATTTGAAT GTATTTAGAA AAATAAACAA ATAGGGGTTC CGCGCACATT TCCCCGAAAA   4200
290 GTGCCACCTG ACGTCTAAGA AACCATTATT ATCATGACAT TAACCTATAA AAATAGGCGT   4260
292 ATCACGAGGC CCTTTCGTCT CGCGCGTTTC GGTGATGACG GTGAAAACCT CTGACACATG   4320
294 CAGCTCCCGG AGACGGTCAC AGCTTGTCTG TAAGCGGATG CCGGGAGCAG ACAAGCCCGT   4380
296 CAGGGCGCGT CAGCGGGTGT TGGCGGGTGT CGGGGCTGGC TTAACTATGC GGCATCAGAG   4440
298 CAGATTGTAC TGAGAGTGCA CCATATGCGG TGTGAAATAC CGCACAGATG CGTAAGGAGA   4500
300 AAATACCGCA TCAGGCGCCA TTCGCCATTC AGGCTGCGCA ACTGTTGGGA AGGGCGATCG   4560
302 GTGCGGGCCT CTTCGCTATT ACGCCAGCTG GCGAAAGGGG GATGTGCTGC AAGGCGATTA   4620
304 AGTTGGGTAA CGCCAGGGTT TTCCCAGTCA CGACGTTGTA AAACGACGGC CAGTGCCACG   4680
306 CTCTCCCTTA TGCGACTCCT GCATTAGGAA GCAGCCCAGT AGTAGGTTGA GGCCGTTGAG   4740
308 CACCGCCGCC GCAAGGAATG GTGCATGCAA GGAGATGGCG CCCAACAGTC CCCCGGCCAC   4800
310 GGGGCCTGCC ACCATACCCA CGCCGAAACA AGCGCTCATG AGCCCGAAGT GGCGAGCCCG   4860
312 ATCTTCCCCA TCGGTGATGT CGGCGATATA GGCGCCAGCA ACCGCACCTG TGGCGCCGGT   4920
314 GATGCCGGCC ACGATGCGTC CGGCGTAGAG                                     4950
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316 (2) INFORMATION FOR SEQ ID NO: 8:
318   (i) SEQUENCE CHARACTERISTICS:
319   (A) LENGTH: 7 amino acids
320   (B) TYPE: amino acid
321   (C) STRANDEDNESS:
W--> 322   (D) TOPOLOGY: Not Relevant
324   (ii) MOLECULE TYPE: peptide
326   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

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PATENT APPLICATION: US/10/057,467   TIME: 14:04:49

Input Set : N:\Crf3\RULE60\10057467.raw
Output Set: N:\CRF3\07022002\J057467.raw

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328      Pro Lys Lys Lys Arg Lys Val
329      1               5
331 (2) INFORMATION FOR SEQ ID NO: 9:
333     (i) SEQUENCE CHARACTERISTICS:
334         (A) LENGTH: 20 amino acids
335         (B) TYPE: amino acid
336         (C) STRANDEDNESS:
W--> 337    (D) TOPOLOGY: Not Relevant
339     (ii) MOLECULE TYPE: peptide
341     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
343     Ala Val Lys Arg Pro Ala Ala Thr Lys Lys Ala Gly Gln Ala Lys Lys
344     1               5                   10                  15
346     Lys Lys Leu Asp
347                 20
349 (2) INFORMATION FOR SEQ ID NO: 10:
351     (i) SEQUENCE CHARACTERISTICS:
352         (A) LENGTH: 4 amino acids
353         (B) TYPE: amino acid
354         (C) STRANDEDNESS:
W--> 355    (D) TOPOLOGY: Not Relevant
357     (ii) MOLECULE TYPE: peptide
359     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
361     Gly Gly Pro Pro
362     1
364 (2) INFORMATION FOR SEQ ID NO: 11:
366     (i) SEQUENCE CHARACTERISTICS:
367         (A) LENGTH: 48 base pairs
368         (B) TYPE: nucleic acid
369         (C) STRANDEDNESS: unknown
370         (D) TOPOLOGY: unknown
372     (ii) MOLECULE TYPE: cDNA
374     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
376 ATGGGAAAGA AGAAGAAGAA GAAGAAGAAG AAGAAGGGGG GGCCCCCC                   48
378 (2) INFORMATION FOR SEQ ID NO: 12:
380     (i) SEQUENCE CHARACTERISTICS:
381         (A) LENGTH: 30 base pairs
382         (B) TYPE: nucleic acid
383         (C) STRANDEDNESS: unknown
384         (D) TOPOLOGY: unknown
386     (ii) MOLECULE TYPE: cDNA
388     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
390 CCTCCTCCTC CTCCTCCTCC TCCTCCTCCT                                       30
392 (2) INFORMATION FOR SEQ ID NO: 13:
394     (i) SEQUENCE CHARACTERISTICS:
395         (A) LENGTH: 30 base pairs
396         (B) TYPE: nucleic acid
397         (C) STRANDEDNESS: unknown
398         (D) TOPOLOGY: unknown
400     (ii) MOLECULE TYPE: cDNA
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 07/02/2002
PATENT APPLICATION: US/10/057,467   TIME: 14:04:50

Input Set : N:\Crf3\RULE60\10057467.raw
Output Set: N:\CRF3\07022002\J057467.raw

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos.1,2,3,6,8,9
Seq#:2; N Pos. 28,29,31,32,34,35,37,38,40,41,43,44,46,47,49,50,52,53,55,56
Seq#:4; N Pos. 23,24,26,27,29,30,32,33,35,36,38,39,41,42,44,45,47,48,50,51
Seq#:5; N Pos. 23,24,26,27,29,30,38,39,44,45,47,48
Seq#:13; N Pos. 3,6,9,12,15,18,21,24,27,30
Seq#:14; N Pos. 3,6,9,12,15,18,21,24,27,30

VERIFICATION SUMMARY   DATE: 07/02/2002
PATENT APPLICATION: US/10/057,467   TIME: 14:04:50

Input Set : N:\Crf3\RULE60\10057467.raw
Output Set: N:\CRF3\07022002\J057467.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:53 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=1
L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:322 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=8
L:337 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=9
L:355 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=10